

REMARKS**Amendments to the Claims**

Claims 1-20 were pending in the application. Claims 1, 4-6, 9-11, 14-16, and 19-20 have been amended, claims 3, 8, 13, and 18 have been cancelled and no claims have been added. Therefore, claims 1-2, 4-7, 9-12, 14-17, and 19-20 are pending in the application and are submitted for reconsideration.

This amendment changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

The amended claims are supported, for example, on page 20, line 25, to page 21, line 57⁵⁷ 16, page 23, line 4, to page 23, line 9, and page 26, line 3, to page 26, line 21.

Amendment to the Title

Applicant has proposed a title that is better indicative of the features recited in the pending independent claims. Approval is respectfully requested.

Rejection under Section 112

In the office action, claim 11 is rejected under 35 U.S.C. §112, second paragraph. In reply, applicant has amended claim 11 to address the issue noted in the office action. Accordingly, claim 11 is now believed to be in definite form and meet the requirements of §112, second paragraph.

Prior Art Rejections

In the office action, claim 1-20 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent application publication number 2003/0123081 (hereafter “Iwasaki”). Applicant respectfully traverses the applied rejection for at least the following reasons.

Each of the independent claims 1, 6, 11, and 16 recite, *inter alia*, an apparatus (or corresponding method) in which an image determination section (or step) determines the

optimum operation mode (or whether suitable for compression and decompression) for the image data read by a scanner unit on the basis of *a density distribution* of the image data. At least this recited feature is not disclosed or suggested by Iwasaki.

While Iwasaki mentions something about a predetermined density value on page 4, paragraph [0057], it does not describe that the density distribution is used to determine whether the image is easy to degrade by compression or for selecting an optimum operation mode. That is, the portion cited in the office action, with respect to the previously pending claims 3 and 8, discloses that "...may be determined by the total number of pixels having a predetermined density value..." on page 4, paragraph 0057. However, Iwasaki does not describe determining an optimum operation mode (or whether a document image is suitable for compression and decompression) based on the density distribution.

This recited feature provides the following advantages. In an encoding method which is generally adopted as the image compression method, images, such as text data, are hard to degrade, but photo images are easy to degrade. Indeed, whether or not the image as a whole is a high-definition image or not can be determined based on the amount of image data (bitmap data). However, if the image quality is determined based on the amount of image data alone, an image, such as the one having a photo image in a text image, may be determined as being hard to degrade after image compression (i.e., an image suitable for compression). If such a mixed text-and-photo image is compressed, the part having a photo image will be degraded.

In contrast, if the image quality is determined based on a density distribution of the entire image, as recited in the pending independent claims, it is possible to determine a mixed character-and-photo image with reliability. A mixed character-and-photo image, as discussed above, is described as a complex image in the present specification. That is, as recited in the pending independent claims, it is possible to distinguish a complex image based on the density distribution of the entire original document. As a result, even for the complex image in which a text and a photo are mixed, the claimed invention is capable of reliably determining that such an image is easy to degrade by compression.

Therefore, neither the specific recited features nor their advantages are disclosed by the applied prior art. Accordingly, the pending independent claims are patentable over the applied prior art.

The dependent claims are also patentable for at least the same reasons as the respective independent claims on which they ultimately depend. In addition, they recite additional patentable features when considered as a whole.

Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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FOLEY & LARDNER LLP
Customer Number: 22428
Telephone: (202) 945-6162
Facsimile: (202) 672-5399

By Aaron C. Chatterjee

Pavan K. Agarwal
Registration No. 40,888
Aaron C. Chatterjee
Registration No. 41,398
Attorneys for Applicant